



# OVERDRIVE

*The Newsletter of the Ottawa Valley Triumph Club*

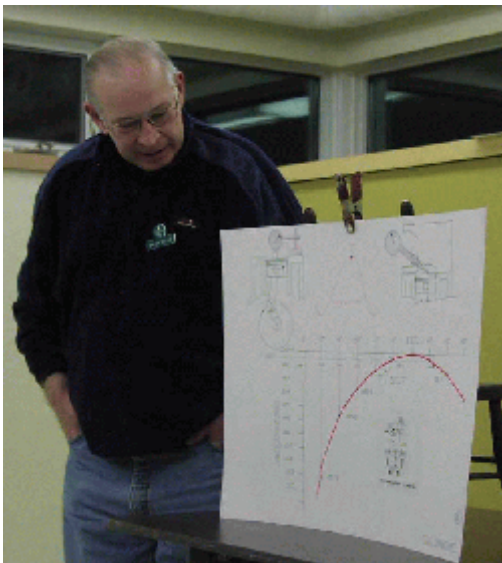
February 2002



*It's a Triumph ... but what is it? Don't know ... see John Day's note on page 7.*

## **January Activities**

Our January meeting was a success as we were treated to another of Brian Mills' informative technical talks. This time Brian led us through a discussion of valve timing. The presentation was inspired by the problems that Bob Thomas had been having with setting up his TR6. Turns out there are some interesting differences between the stock cam sprocket and at least some of the after-market products. This month is the first part of series of articles based on Brian's presentation. We had a good turnout of members, including all members of the newly joined Haasper Clan. Also this month we are pleased to welcome Royce Graham to the club. He is from Kingston and is looking for a TR4 or TR6 in good condition. A warm welcome also to John Tierney who is back from his stint in Australia.



***Timing is Everything!***

This month was also time for the All-Clubs Meeting and John Day attended on our behalf and reported back. This is the yearly opportunity for all local and regional clubs to get together under one roof to announce their planned or proposed activities and shows for the upcoming driving season. The Sporting and Classic Car Show (aka 'Richmond') has been reserved for 23 June, and now all the clubs are aware of that date. In fact, Ed Kaye has

submitted Richmond to the Events page for Hemmings.com. Maybe we'll get someone in from across the continent.

As well as the usual dates for upcoming shows being announced, this year saw the results of the First Annual Newsletter Competition. Unfortunately, our newsletter didn't win, but there was some stiff competition. The winners were, in order: the Mercedes Benz Club, the Antique Automobile Club, and the Ottawa Valley Land Rover Club. The M-B club is a quarterly, while the AAC is out every other month. Only the LR club does a monthly like ours, so we can't complain much about what we do, for how often we do it.

Don't forget our regular meeting on 26 February.

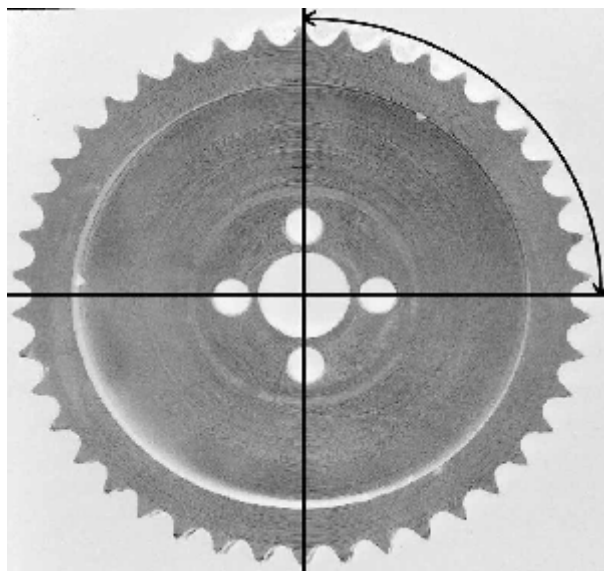
### ***The Triumph Camshaft Sprocket Saga* by Brian Mills**

Putting a timing chain on an engine is usually not a big deal. In many engines, both the crankshaft sprocket and the camshaft sprocket are aligned to their shafts with a key and key way. This allows the sprocket to fit only in one position relative to the shaft. It is usually a minor matter of aligning the timing marks and installing the chain.

Triumph camshaft sprockets are different for reasons not clear to me. The crankshaft sprocket is fixed by a key and only goes on in one position. The camshaft sprocket has four mounting holes, but only two are used to attach the sprocket to the camshaft. Most Triumph cam sprockets (but not TR6 sprockets) are symmetrical, i.e., they can be flipped over and either side put toward the engine.

### **Most Triumph Camshaft Sprockets**

The camshaft sprocket has 42 teeth, which means that for 90 degrees of rotation there are 10.5 teeth. This also means that if the other two holes are used to mount the sprocket the relative position of the sprocket to the cam is offset by 0.5 of a tooth (Figure 1).



**Figure 1.** In most Triumphs there are 10.5 teeth in 90 degrees and the mounting holes are symmetrical; however, because the mounting holes are offset 1/8 of a tooth, adjustments of up to 0.75 of a tooth are possible.

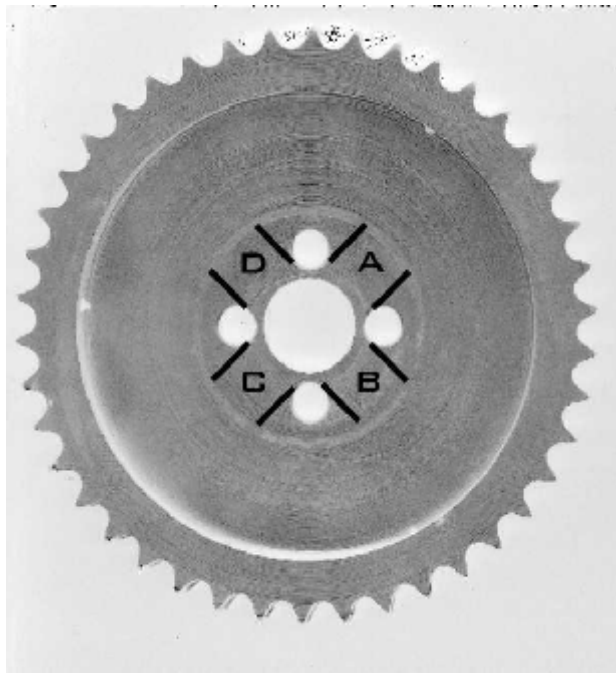
In addition, the centre lines through the mounting holes are actually offset from the crest and trough by  $\pm 1/8$  of a tooth. When one side of the sprocket is used we have 0 (reference) and 0.5 tooth offsets. When the sprocket is flipped front to back, installed in the same holes or rotated 90 degrees you produce a net effect of 0, 0.25, 0.5, and 0.75 tooth offsets.

This reversible sprocket is found in TR2 through TR4A (dual chain) and Spitfires, early TR250s, and GT6s, which use single chain drives.

### TR6 Non-Reversible Camshaft Sprockets

After having problems setting up the valve timing of a TR6 engine that had a new camshaft sprocket installed, I did some investigation. Here is what I found:

- the reversible dual chain sprockets (TR2–TR4) and the sprockets used for single chains (Spitfires, TR250s, GT6s) have the mounting holes arranged in a square pattern that is offset to the tooth crests and troughs by  $\pm 1/8$  of a tooth.
- the original TR6 camshaft sprockets (which are the same size and have the same number of teeth) have a smaller mounting hole spacing, and the mounting holes are NOT in a square pattern (see Figure 2). What I found was that dimensions A and D were larger than B and C. However, they work just fine when setting up a camshaft and I have done it several times with no problem at all. However, I still don't understand why the spacing is different.



**Figure 2.** Arrangement of holes of stock TR6 cam sprocket. Dimensions A and D are 0.390 inches; dimensions B and C are 0.370 inches (average of three sprockets).

- with the after-market TR6 cam sprocket that Bob Thomas bought, we could not get better than 0.25 tooth alignment, which is not satisfactory for good performance. This sprocket differed from the stock sprocket in that the mounting holes were arranged in a square pattern, with a spacing of 0.385 inches between the holes.

*Next month ... Brian will explain what's all this mean when you try to adjust your valve timing*

## *The Apprentice* by Liv Haasper

We went to the library recently and brought back books on Classic British Cars. Big Mistake. I'm now told in a quiet but firm voice, that the names of the marques Jaguar E series or Morgans are not to be mentioned any more. The house will not be mortgaged, and hints about a second or night-time job will be ignored. I offered that, maybe, I could sell my body for high prices, which resulted in a laugh and the comment: You're over the hill, honey, they won't be paying you that much. I'm crushed. With a last attempt I suggest plastic surgery, a tuck here, a nip there. He just laughed. Rats. Its tough when you are over fifty. In a further attempt to quiet me down, I was handed a dust mask, and I was told to start sanding the valance. Let the restoration process of the Spitfire begin.

Yes, I was formally appointed first apprentice in the Haasper restoration facility. I had vowed to the Firefly that I would restore her beauty, and I always keep my promises. I have to learn from the bottom up, I have to follow orders, and do what I'm told. This will be a hard job for me. I usually do things my own way, have my own ideas. But for the betterment of the little British car, I will do my best.

Yesterday I had applied the polyester resin to the aged looking valance in a very creative manner. Having a good eye for balance and beauty, I slapped the stuff on with grace. I had to hold back not to get too creative. This was a medium I had not worked with before. One can create interesting patterns. Then the boss told me that all the extra resin has to be sanded to a smooth surface. I quickly scraped of the little ornaments I had created. I was told that the job was acceptable. Today I was ordered to sand the valance down, make it smooth as a baby's behind. I was armed with a stack of sandpaper and very eager to get started. The restoration process was in full swing.

It didn't take me long to find out that wearing gloves is not possible on this job. One has to feel the smoothness of the metal, the minute differences and details in the structure of the resin. So I feel the surface, I sand, I sand again, I feel, and stare at the dust, I sand some more, as the clock ticks ever so slowly. Once in a while the boss looks over my shoulder, points to an area that I had considered already finished, nods knowingly. I carry on. Oh, it's a rough life for a "wannabe" body repair lady. These once perfectly manicured fingernails, that gently used to caress the strings of a classic guitar, are now working themselves to the bone on polyester resin. The table in front of me, the walls, in fact the whole world around me, is slowly taking on the shape of the white sands desert in New Mexico, and I'm just another lump in the unreal moonscape.

I blend right into the dusty white surroundings. I grab an automotive mirror that's lying on the workbench. It can't be true. I'm horrified, it's Madam Butterfly from the Metropolitan Opera House looking back at me. But, instead of a beautiful Kimono, she is wearing a relic of a sweatshirt sporting prancing horses and the poetic words *Happy Trails to You*. Her hair is not of a beautiful black colour, its prematurely white. Bright blue eyes, accentuated by white eyelashes, are staring back at me, the make-up, much too white for my complexion. As I'm gazing with shock at the new me, I hear laughter echoing from the other side of the garage: "Honey you look good!"

Now there is a change. There is hope after all. Is this what a girl has to do to get some appreciation around here? He destroys it all and calls: "You're not finished on that piece, see the ridge over there, carry on, get to it". Then the challenging question: "Are you sticking this out, or are you giving up on the piece?" He knows that those are words that will make my adrenaline flow. A good soldier never gives up! I go and make the horses prance again through the dust of the white sands, but I'm learning. The valance is finished soon. I will primer it in the morning, after the dust has settled. I leave the cleanup to the expert and walk away like Pig-Pen from the Peanuts cartoon. With every move I make, dust rises from my body, floats around me like a cloud and then slowly drifts to the floor. But there is pride in my heart, I'm doing this for the little lady in red, my little Spitfire.

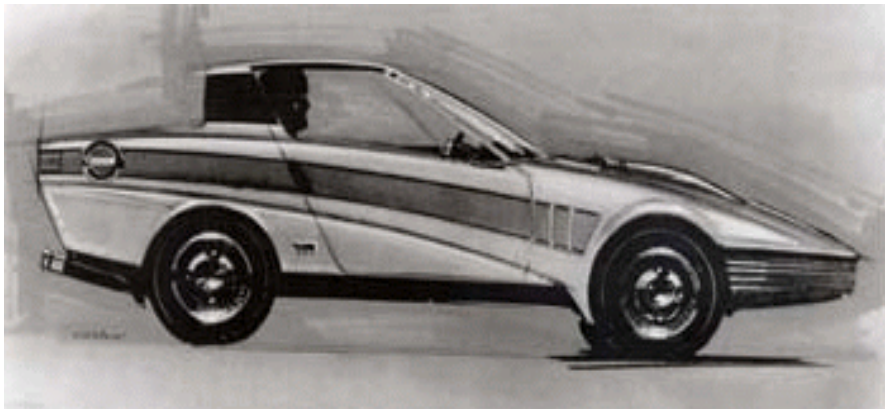
And, as for the little matter of the Jag or the Morgan, I think I'll put plan B. into motion.

## ***Pointing the Way to the Future, the TR7 Gains Acceptance at Last*** by Stuart Birchit

(Reprinted from the *Times*)

It is 25 years since a tapered snout pushed its way into the world of the snarling British sports car. With its wedge shape and distinctive nose job, including pop-up headlamps, the TR7 was a daring move by a company that saw it pointing the way towards the 21st century. Unfortunately, it just pointed the way to its own exit. Triumph, worried that the United States, its biggest export market, was about to ban open-top cars on safety grounds, decided that the new car would be available only with a fixed hardtop. In concept drawings by Harris Mann, the designer, it looked light and aesthetically pleasing —but its modified production form had a touch of the tank turret about it. Then the Americans decided that open-top cars would be OK after all. So the TR7 had a second chance and in 1980 came the balanced shape of the drophead that should have been there all along. Triumph also planned a snarly 3.5-litre V8-engined version — the TR8.

But it was all too late. The TR7's image had been cast, the world was suffering a recession, Triumph was losing £1,000 on every car it sold in the US and, in October 1981, TR7 and TR8 production ended. But was that styling so far ahead of its time that it just was not appreciated? Dale Harrow, the department director of vehicle design at the Royal College of Art in London, thinks so. "British Leyland, who owned Triumph in the 1970s, were trying to be provocative. The



***The original Mann concept drawing.***

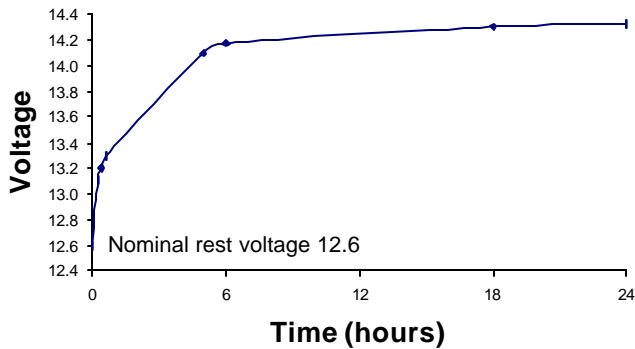
concept drawings show a fantastic car. It is true that it differed somewhat in the translation for production, but TR7 and TR8 look far better in 2001 than they did in the 1970s.

"If the convertible had come first, the TR7 story might have been very different. And if the design had matured to become a TR9 and TR10, I think today we would be looking at a car that would be pretty dramatic."

Mann agrees that it was the US safety legislation that caused the main problems, but Triumph made matters worse. "I wanted it to have lift-out roof panels like the Chevrolet Corvette, but the engineers decided that was too tricky to do," he said. "The TR7 was meant to be a statement of where we were going in terms of design — unfortunately, engineering did not keep up with what the designers were trying to do." Only 5,300 TR7 convertibles were sold in the UK and a mere 18 right-hand drive TR8s completed. Mark Grinnall, who runs Grinnall Specialist Cars, converted about 300 TR7s to TR8 specification between 1981 and 1995. Half a dozen were given radically altered bodywork, one of which has been owned for six years by the opera and symphonic conductor, Stephen Barlow, husband of Joanna Lumley. "We both love driving it. It looks spectacular, attracts great interest, makes lots of noise and is a real country-road car," he said. It may have been a long road to acceptability for the TR7, but it seems to have made it at last.

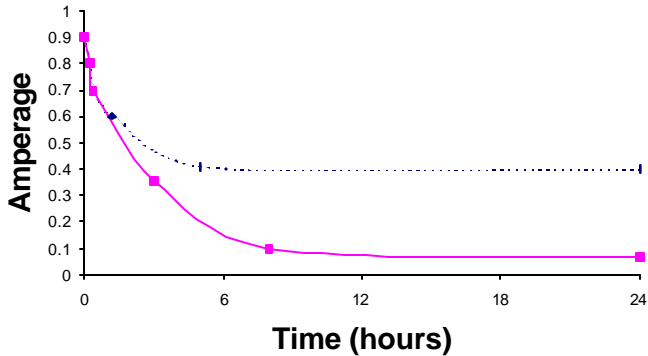
## ***Canadian Tire Battery Charger*** by Michael Graham and Brian Mills

Last week I was in the Barrhaven CTC store and saw a 1 amp battery charger on sale of \$9.99. I remembered that Brian in one of his technical talks had suggested that this sort of charger was perfect for keeping a battery charged while in storage. Announced my purchase to Brian a couple of days later, and he informed me that most inexpensive chargers don't work at all. "Bring it over and we'll put it through its paces!" ... never does anything electrical gets under Brian's radar. So here we have the results of the testing. By the way, the charger is CTC part number 11-1543-6.



The top graph on the left shows the performance of the charger over 24 hours. The nominal resting voltage of the battery (a 5-year old one in good condition in this case) is 12.6 volts. The charger brought this up to the fully charged state of between 14.2 and 14.4 volts in about 24 hours.

The instructions that come with the charger give different average charge times for different capacity batteries, and the times Brian recorded seem to fall in the ranges specified. One note: this is a manual charger and must be monitored to prevent overcharging of the battery. Brian's recommendation was to leave it on charge for about 24 hours every week or so to keep your battery at full charge over the winter.



The bottom graph on the left shows how the current flow dropped over time (as the voltage increases). The top line was for the 5-year old battery (with higher self discharge). The bottom line for a newer battery with lower self discharge.

Perhaps more technical information than most of us need, but for \$10 looks like this is a good way to keep your battery in tip top shape.

### ***'Triumph World' Subscription Offer by John Day***

I recently received some correspondence from the publishers of 'Triumph World' magazine. They are making a special subscription offer to club members. I know subscription rate for this, as for all UK car magazines, is quite high, making newsstand purchases comparable each issue. I guess they realize this at TW also — hence the offer. The proposal is that club members can subscribe for half price, and the magazines are shipped in bulk to one location for distribution.

The conditions state, however, that a minimum 10 copies must be made on this offer. The magazine would be purchased at half UK price (i.e., 1.75 UKP), plus shipping. The shipping is estimated at 10 UKP, estimating the magazines would weigh 2.5 kg. This still works out pretty good on a per-issue price, given the newsstand price is about \$12 after tax. That would be \$120 for the 10 issues; for the offer, the price would be roughly 27 UKP, or about \$65. Those interested can contact John Day, who is willing coordinate the ordering. Perhaps a show of hands at the February meeting would indicate if this could be a viable option.

### ***Triumphs @ Mid-Ohio this June — worth the trip! (Press Release)***

TRIUMPH will be the featured marque for "The Sprint Vintage Grand Prix" at the Mid-Ohio Sports Car Course in Lexington, Ohio (14–16 June 2002). You are cordially invited to participate in commemorating the 50th Anniversary of the development of the Triumph Sportscar. This car, referred to as the TR 1, was the first of a long line of Triumph cars considered to be the best all-around sports cars ever produced. The 1992 commemorative was one of the most successful gatherings of Triumph people from all walks of life. Everyone who attended is talking about returning and bringing a friend. Those that weren't there have been making plans to attend this 50-year event without fail. We expect this event to be the largest attended Triumph-specific event in history.



Activities will include commemorative laps for the enthusiast, celebrity guests, historic cars, an on-ground-assembled museum of Triumph Marque history, and an International all-Triumph Marque Race. A special commemorative badge has been designed to mark this historic anniversary. Kas Kastner, Triumphs West coast racing great, will serve as Grand Marshall. Racing greats, past and present, are pursuing plans to be a part of this weekend. Bob Tullius of Group 44 fame, Paul Richardson and various period European Rally Drivers have all been contacted. Currently we are expecting 60 or 70 Triumph Racers to be featured including as many as 14 cars from overseas. Watch your enthusiast newsletters, significant auto-related publications, e-mail lists, and web sites for further information and commemorative memorabilia to be made available.

### *From the Front Cover by John Day*

So what is it ... La Dawri — that's what! This was apparently a kit car for the TR3 chassis, available in the early 1960s in California. One of these recently came up for auction on Ebay. Hard to tell from the picture, but it looked like a slick little car — even a bit like the Italia. We'll see if there is more information about these kit cars for future issues.

### *For Sale/Wanted*

**1963 Triumph Herald** coupe. Car has been in storage for 25 years and is in need of restoration. For further info e-mail [ajdayman@tcc.on.ca](mailto:ajdayman@tcc.on.ca)

**1973 TR7** with half of restoration completed with a running restored engine new wiring and restored brakes. Complete body but needs a restoration project. Price is negotiable at \$3350 obo (Renfrew Area). Contact Bonnie at 613-752-2976 or email [breid@renc.igs.net](mailto:breid@renc.igs.net)

**TR6 Parts.** New and priced to sell. Black original wool carpet set \$400; Leyland trunk rack \$125; door handle pulls (black) for 1973 and prior TR6 \$50 pair; engine bay black rubber seal \$20; grill finish piece (goes under the grill and attaches to the clips) \$50. Contact Chris Clarke (former TR6 owner) at 613-838-5136.

**Wanted Fenders for TR3A.** Most interested in passenger side front and driver side rear, but would accept others if they're better than mine. Also looking for passenger side inner fender. Might take a driver side one too, if it's better than mine. I'm about to order new floors, inner and outer rocker panels, battery box, etc. so if anyone happens to have surplus on that stuff, it would be great. Tim Dyer at [KingsCreekTrees@aol.com](mailto:KingsCreekTrees@aol.com) or 253-4126.

### *Our Sponsors*

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**British Car**, PO Box 1683, Los Altos, CA, 94023, USA. The American magazine for Triumph enthusiasts who love English cars. To subscribe call: 1-800-949-9680. Mention the advertisement in our newsletter and get one extra issue free. Rates: 1 year (6 issues) \$22.95 USD, 2 years \$39.95 USD.

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Email: [info@kdcwear.com](mailto:info@kdcwear.com) Embroidery, Digitising, Screen Printing, and Garment Sales.

The Ottawa Valley Triumph Club is comprised of approximately 65 members. The Club meets at 7:30 p.m. on the fourth Tuesday of each month at the Manordale Community Centre, which is located at the corner of Knoxdale and Carola Roads in the City of Ottawa. Meetings include technical seminars, video presentations, restoration techniques, and much more. The Club also publishes a monthly newsletter, *Overdrive*, which is distributed to members and exchanged with other car clubs.

Membership is open to all individuals and companies interested in Triumph sports cars. Membership is \$30.00 per year (June/June) per household and \$60 per year, corporate. **Please send membership applications** to: OVTC c/o Vivien Kaye, 1710 River Road, Manotick, ON, K4M 1B4.

*The OVTC is a member of the British Car Council and is affiliated with the TR Register (UK)*

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